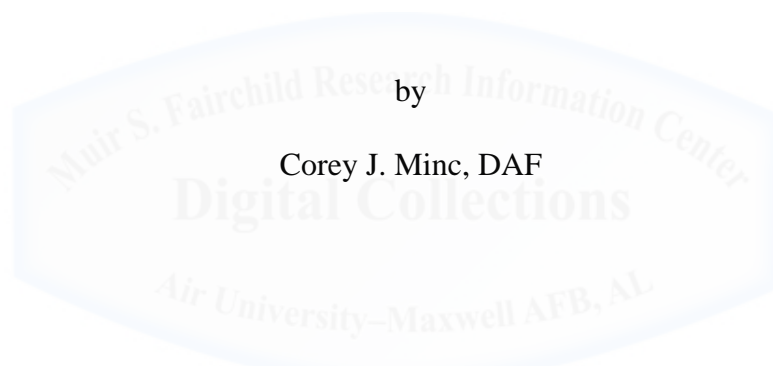AIR COMMAND AND STAFF COLLEGE

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cASM: OBTAINING THE ABILITY TO CAPTURE

REQUIREMENTS INFORMATION ACROSS THE

INSTALLATION CONTRACTING SUPPORT COMMUNITY

by

Corey J. Minc, DAF

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Advisor: Dr. Fred P. Stone

Air Command and Staff College
Maxwell Air Force Base, AL

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TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

As defense spending has been reduced the installation support community has continued to experience budgetary shortfalls. In order to counteract this installation contracting support organizations need to utilize the full buying power of the Air Force, through Strategic Sourcing, to get the required commodities and services for the best possible price. Current Strategic Sourcing efforts are limited because they are based upon data that is only visible after an acquisition is completed; savings can only be generated from future actions and do not benefit current fiscal budgets.

The Contingency Acquisition Support Model (cASM) is a web-based application, developed for the contingency contracting community as a requirements planning and generation tool that provides situational awareness and standardization on all emerging needs. This research used the evaluation framework to determine if this tool can provide the same situational awareness capability to the installation support community to improve the efforts of Strategic Sourcing. This was determined by assessing how cASM operates in its environment, captures it data and generates its requirements packages, provides visibility and reporting to the entire command structure, and allows for prioritization and consolidation. The results found that cASM is able to assume this role and the paper concludes that it should be implemented across the installation contracting support community.

SECTION 1

INTRODUCTION

The United States Air Force started its journey to meet the vision of Acquisition

Excellence in July 2009 with the implementation of the Installation Acquisition Transformation

Plan (IAT) signed by then Secretary of the Air Force Michael B. Donley and Chief of Staff,

General Norton A. Schwartz. In view of budgetary shortfalls, process inefficiencies and lack of

the ability to implement strategic sourcing initiatives, this plan directed a course of action to

transform and improve contracting operations at all Air Force Installations across the continental

United States.[1] This transformation was designed to improve each identified problem area and

enhance customer service, but most importantly, to achieve savings through the expanded pursuit

of strategic sourcing opportunities.[2] While many improvements through this transformation

process have been achieved, the principles and savings of strategic sourcing have yet to reach

their full potential because a significant amount of contract duplication remains; organizations

continue to award contracts for similar goods and services and often to the same vendor.[3] The

Air Force currently has no enterprise wide system that has the ability to capture and analyze all

the operational needs of each installation requirements, before they are placed into the

acquisition system. An analysis can only be conducted with data that is generated after the

purchase, which limits any potential savings to future acquisitions and has limited benefit to

current budget shortfalls. Significant savings lie in the ability analyze current acquisitions before

they are complete, consolidate like purchases with cost effective standards and use the combined

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1. SAF, Memorandum, *Installation Acquisition Transformation (IAT) Way Ahead*.
2. Ibid.
3. OMB, *Transforming the Marketplace: Simplifying Federal Procurement*, 2.

buying power of an entire enterprise to leverage greater per unit savings which also results in a streamline more efficient business process.[4]

The acquisition community recognized a similar problem and need within the contingency or wartime acquisition environment.   As part of his remarks on the interim report before the Commission on Wartime Contracting in Iraq and Afghanistan, the Director of Defense Procurement and Acquisition Policy (DPAP), Mr. Shay Assad, commented that within the Area of Operations (AOR), the Joint Commander requires situational awareness on all acquisition activities to ensure each action meets his guidance and intent.[5] This helps to "identify common requirements, contracting gaps and problems early. With such proactive approaches, we can eliminate redundancy and rapidly resolve problems."[6] To meet this need, he recommended that the Contingency Acquisition Support Module (cASM), a web based application that is currently hosted and maintained by Joint Contingency & Expeditionary Services (JCXS) of the Defense Logistics Agency (DLA), be implemented.

cASM was developed and fielded to enhance situational awareness for the Joint Commander on all contracting activities by capturing requirements and providing analysis of developing acquisitions before they are complete. This capability is also needed within the installation contracting support community. This paper will evaluate if the implementation of cASM is the answer for the U.S. Air Force Installation Contracting Support (ICS) community to capture and analyze acquisition requirements.

To answer this question, I used the evaluation framework to identify common aspects between the two environments and determine if tools or processes, developed for one, may be

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4. OMB, *Acquisition and Contracting Improvement Plans and Pilots*, 3.
5. COWC, *Hearings before the Commission on Wartime Contracting*, 8.
6. Ibid.8-9.

applied to the other. The ICS community and the contingency community have developed many different tools that aide the acquisition process. This research does not evaluate all possible courses of action, or promote the development of new tools or applications. The scope of this research is to identify and evaluate current applications developed for one environment that may be applied to a different but similar environment.

I developed the background and problem by giving a brief history of the installation and contingency contracting environments and shown how the IAT program has proceeded but has not yet reached its completion. I will also show how the contingency environment has evolved with emerging doctrine and the identification of contracting as a form of Economic Power for the Joint Commander. This will highlight the problem and inefficiencies caused by the lack of situational awareness and why Commanders at all levels require enterprise wide requirements capture and analysis. I will then proceed to further define the evaluation framework, methodology and the associated criteria that will be used to conduct the evaluation of both the OCS and ICS environments, which will lead to analysis and recommendations. Ultimately, the goal for this research is to evaluate if cASM provides the necessary capability for the ICS community to gather and analyze requirements, its advantages, disadvantages, and enterprise wide benefits.

SECTION 2

BACKGROUND - THE CONTRACTING ENVIRONMENT

Installation Contracting Support Environment

Contract authority is the ability to obligate government funds for the acquisition of goods and services and is similar to Command Authority. It is delegated to individuals from the highest levels of the Executive Branch of Government down to the using or executing

individuals, known as Contracting Officers (CO). Prior to the implementation of the Installation

Acquisition Transformation, contracting authority and contracting organizations were aligned to

support each respective Major Command (MAJCOM) within the Air Force. Contract authority

was delegated through the Secretary of the Air Force to each MAJCOM Commander and down

to the using CO, normally following Command Authority lines. While this was efficient in

supporting organizational needs, efforts and business processes were constrained to inside a

specific MAJCOM. Each MAJCOM operated under its own governance, policies and business

rules. Mandatory Procedures (MP) and Standard Operating Procedures (SOP), while legally

sufficient, differed greatly from one MAJCOM to the next. Additionally, as each MAJCOM

operated independently and in a decentralized manner, there was little incentive or ability for

cross MAJCOM collaboration or the consolidation of any acquisition effort. While efficient for

a particular MAJCOM and its local suppliers, this was inefficient for the Air Force as it was not

able to benefit from leveraging its large buying power.[7] With the implementation of IAT, this

model was changed dramatically.

The critical step of the transformation process was the change of the flow of Contracting

Authority. Under the rewrite of Air Force Instruction 64-102, *Operational Contracting*

Program, this authority no longer flowed through the MAJCOM Commanders. Authority now

flows from the National Security Act and Armed Services Act of 1947, through the Secretary of

the Air Force and the associated Head of contracting activity, through the Senior Contracting

Officials at each MAJCOM down to the Contracting Officer.[8] Also significant, was that the Air

Force Material Command (AFMC) was designated as the lead MAJCOM for all acquisition

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7. Moore, *Developing Tailored Supply Strategies*, 93-94.
8. AFI 64-102, *Operational Contracting Program*, 2.

functions and tasked to consolidate all acquisition management oversight.[9] Now instead of each

MAJCOM responsible and operating independently all contracting authority would flow through

AFMC. This designation would also allow for standardization of all acquisition business

processes, facilitate cross MAJCOM collaboration and enable the Air Force to purchase the best

products and services for its installation customers at the best possible value to maximize its

limited resources.[10]

The final step in the IAT process was the creation of an organization, under AFMC,

tasked with the specific management of all installation operational acquisitions oversight,

specialized execution and enterprise wide strategic sourcing, the Air Force Installation

Contracting Agency (AFICA). Officially AFICA was organized November 13, 2013 and

assumed Command Authority over and passed Contracting Authority to the contracting staffs of

each MAJCOM except Air Force Reserve Command (AFRC) and its parent organization AFMC.

This is a critical delegation; each MAJCOM retained Command Authority over each of its

installation level contracting organizations, but the Contracting Authority flows from HQ

AFICA. This ensured the ability for AFMC through AFICA to govern the acquisition process

but still gives the MAJCOMs flexibility to support its individual bases and support mission. The

installation support role, while not a direct warfighting capability, is a crucial link on how the Air

Force generates combat power and takes care of its Airmen and equipment.

The commodities and services acquired through installation support represent a sizable

investment by the Air Force. On average it consumes 11% of the total Air Force budget per

year, which equates to approximately $8.6 billion dollars.[11] These commodities and services are

9. DOD, *Implementation of Strategic Sourcing Initiatives, FY07 update*, 55.
10. Ibid. 56.
11. AFICA, *Category Management, Applying Better Buying Power to Installation Support*.

such things as Information Technology Equipment and Communication Services, Facilities

Construction, Maintenance and Security, Transportation and Logistics Services, and Personnel

Services, Human Capital and Travel and Lodging.[12] In essence these categories represent all

those goods and services that make the Air Force run day to day.

Operational Contract Support

Operational Contract Support (OCS), or Contingency Contracting, is the deliberate

process of planning and obtaining supplies and services in support of joint operations.[13] Like

installation support, OCS was initiated as a result of the Commission on Wartime Contracting in

Iraq and Afghanistan (COWC) findings issued on 10 June 2009.[14] This report made 55

observations of contracting deficiencies, 35 of which were tied to eight areas of "immediate

concern."[15] These deficiencies ranged from inadequate business systems, insufficient training

for acquisition personnel to unnecessarily high spending. [16] The COWC tasked the Department

of Defense to address these deficiencies with a more robust set of internal controls to show an

increase in its fiduciary responsibility as it executes its warfighting mission.[17] One of the most

important and pivotal documents that was developed as a result of the COWC was Joint

Publication (JP) 4-10, *Operational Contract Support*, recently updated and published 16 July

2014. It sets forth clear guidance, policy and oversight to facilitate effective and efficient

contracting support.

OCS execution is a programmatic approach by the Joint Force Commander (JFC), which

requires subordinate commanders and staffs to consider cost, performance, schedule, contract

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12. Ibid.
13. JP 4-10, *Operational Contract Support*, ix
14. DOD, *Analysis of Interim Report of Commission on Wartime Contracting,* ii.
15. Ibid., v
16. Ibid., vii-viii
17. Ibid., v

oversight requirements and the potential economic impact on every acquisition to ensure these fall within the JFC intent and guidance.[18] The economic impact is a special concern. A JFC may have access to considerable funds to support the mission. The use of contracted support can provide a positive economic and social impact to the local populace, but this effect must be closely tied to the strategic effects desired.[19] An ill planned acquisition could lead to economic effects that are detrimental to a JFC's strategic plan.

Within the OCS environment, Geographic Combatant Commands (GCC) are not delegated any Contracting Authority.[20] Contract Authority must flow from a supporting agency down to a respective Contracting Officer who would be working within an Area of Operations (AOR). For an Air Force Contracting Officer, authority flows from the National Security Act and Armed Services Act of 1947, through the Secretary of the Air Force and the associated Head of contracting activity, through the Senior Contracting Official designated to support the AOR, then down to the Contracting Officer.[21] Just as in the ICS environment, this helps to facilitate effective business process and efficiencies. Multiple agencies or branches of the services may be present and supporting the mission, but they would all be using the same procedures and systems. As the personnel within the OCS environment may change quickly, this consistency ensures that incoming personnel are integrated quickly and have less training demands.

OCS is the obtaining of supplies, services and construction from commercial sources in support of Joint Operations.   The types of commodities and services acquired are similar to those acquired within the installation support environment. The top ten services acquired in support of operations in Iraq and Afghanistan from FY 2002 through FY2011were Logistics

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18. JP 4-10, *Operational Contract Support*, I-10.
19. Ibid., I-10.
20. Ibid., I-10 – I-11.
21. Ibid., I-10.

Support Services, Building Construction, Technical Assistance, Professional Services, Guard/Security Services, Building Maintenance and Repair, Office Building Construction, Lease-Rent of Real Property, Facilities Support Services and Program Management Services. These top ten services alone represented $85.6 billion dollars over 9 years, or on average $9.51 billion dollars per year.[22] The total funds spent for this period on commodities and services was about $192.5 billion dollars, or on average $21.38 billion dollars per year.[23]

PROBLEM – REQUIREMENTS CAPTURE

Requirements are the commodities and services that are purchased in any acquisition. While the contracting organization is the one that procures the requirements, the need and funds are derived from command functions. Commanders are responsible to approve requirements that become acquisitions, contracting officials and organizations are responsible to execute that acquisition in a legal and efficient manner to get the requirement to the right place, at the right time, at a fair and reasonable cost.[24] When studying these requirements it is found that there are several factors that influence the ability to get these completed at the right time and price.

Many requirements are interrelated or could be dependent upon each other. They may share or require similar materials, technology or manufacturing process that may provide a lower cost when purchased together as opposed to buying them separately. Additionally, some may be repetitive or bought in certain bulk that if aggregated, would increase economies of scope and scale as well as reducing the need for multiple contract actions. However, too much aggregation or demand can lead to the reverse. The demands of the entire Air Force, on a specific

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22. DOD, *Transforming Wartime Contracting, Controlling Costs, reducing risks*, 23.
23. Ibid., 208.
24. JP 4-10, *Operational Contract Support*, I-4.

commodity or service, could easily exceed or overwhelm a single supplier's capability, potentially even a whole market, which increases the risk or poor performance or even failure.[25]

In the OCS environment, these economies of scales and their impact on the local supply base and economy are of great concern to the JFC as acquisitions may be used as an Instrument of Power (IOP).[26] As part of the programmatic approach to plan for acquisition activities to support mission accomplishment, each requirement must be analyzed on its impact and potential efficiencies. Aggregation must happen at right level, local, regional, or theater wide, so it meets the strategic goal of the GCC or JFC. The ability to capture these requirements as they are put into the acquisition process ensures the situational awareness of the contracting organization so the appropriate decisions can be made and the proper effect achieved while filling a valid requirement for a supported organization. The Contingency Acquisition Support Model (cASM) is a tool that may be used for this capability. The DOD has designated cASM as a discretionary tool and its use based upon the size and complexity of the supported contingency operation.[27]

cASM is a web-based application designed to assist personnel outside the acquisition community in developing requirements so that they can deliver a complete and actionable package to the acquisition community. It provides the capability to electronically plan, generate, staff for approval, track and report any request for services, construction or commodity acquisition.[28] cASM uses three modules or functional areas to accomplish this; Planning Module, Requirements Generation Module, and the Reporting Module. An additional benefit to the use of cASM, through its requirement generation module, is requirements package standardization. This module has the capability to provide and require the use of templates for

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25. Moore, *Developing Tailored Supply Strategies*, 77.
26. JP 4-10, *Operational Contract Support*, I-10.
27. DOD, Contingency Business Environment (CBE) Guidebook, 2
28. Ibid., 16.

recurring forms, reports and historical data as well as an intuitive interface that guides a user through the proper steps in preparing a requirements package.

In the ICS environment, no single commander such as a GCC or JFC, is responsible to make decisions on effects or strategies to support the numerous bases across the Air Force. Each installation is governed by a Wing and MAJCOM Command Structure that has the responsibility to fund and prioritize base support acquisitions. Once these approved requirements are placed into the acquisition process, the contracting organizations are to execute the requirements efficiently. The only mechanisms available to analyze and potentially aggregate these acquisitions are the tenants of Strategic Sourcing.

The Installation Acquisition Transformation (IAT) initiated Strategic Sourcing and organized AFMC and AFICA to execute this enterprise wide but also charged each MAJCOM to strategically source their unique requirements.[29] Like the programmatic approach taken in the OCS environment, Strategic Sourcing involves a focus on pre-award collaboration, acquisition planning, and the improvement of business process to ensure the acquisition is completed at the at the right time, place, and at the best possible fair and reasonable cost.[30] Requirements capture is a key portion of this process. Outside of a few locally developed tools within the MAJCOMs, no cross MAJCOM or enterprise wide system captures requirements or allows pre-award analysis. All analysis at this level can only be accomplished post-award, after the acquisition has been complete.

Strategic Sourcing is a deliberate and programmatic seven step framework. The first step, the only step that concentrates on requirements capture, is the Opportunity Assessment which involves a detailed analysis of a department's entire acquisition spend. This analysis

29. SAF, Memorandum, *Installation Acquisition Transformation (IAT) Way Ahead*.
30. DOD, *Implementation of Strategic Sourcing Initiatives, FY07 Update*, 3.

breaks down all of the acquisitions and their associated cost to see within a selected group,

referred to as a portfolio, what are the supplies or services being bought, who are the buyers, who

are the customers and who are the vendors.[31] Like purchase groups can then be identified for

potential aggregation at the MAJCOM or enterprise level, and a vehicle put in place to force all

future similar requirements through this initiative. This opportunity assessment shows how

requirements are captured and turned into a strategic sourcing opportunity using post award data.

This approach, while effective in identifying common high use services and commodities, only

provides savings for future acquisitions and cannot benefit current fiscal budgets. Additionally,

this does not take into account the changes in technology, markets or in the organizational spend.

To be effective, strategic sourcing actions must happen early in the acquisition cycle to be able to

influence the development and approval of an individual contract acquisition strategy.[32] This

current process can only do this for commodities and services that have an historical trend and a

strategic sourcing initiative or vehicle in place. Without capturing requirements before the

acquisition is completed, the ability to affect emerging needs and new technologies is delayed

until that historical trend is established. In essence, strategic sourcing leaders are looking to the

past to try and predict the needs of the future. From the ICS spend over the period of FY2010

through FY2014, approximately $42.7 billion dollars were obligated yet current strategic

sourcing programs only captured $1.42 billion, which equates to approximately 3.33%.[33] This

shows that current Strategic Sourcing efforts have only been able to capitalize on easily

identifiable opportunities with strong historical trends, the vast majority of acquisitions remain as

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31. DOD, DOD-Wide Strategic Sourcing Program, *Concept of Operations,* 10.
32. Ibid., 12.
33. SAF, *Air Force Update – Air Force Strategic Sourcing Initiatives*.

standalone requirements. With this amount of spend the potential for additional strategic

sourcing initiatives, especially pre-award requirements aggregation, is high.

Literature Review – The Evolution from Research to Doctrine and Policy

The Department of Defense (DOD) and the Air Force have done some significant

research on requirements capture within the OCS environment. The *Analysis of the Interim*

Report of the Commission on Wartime Contracting in Iraq and Afghanistan, published 4

November 2009, specifically identified 35 observations against eight issues of concerns with the

acquisition process and procedures within these AORs. This report details the DODs plan of

action to improve its business systems, process, and the tools or applications needed to make

them more efficient. This report created JP 4-10, updated the Joint Contingency Contracting

Handbook and led to the designation of cASM as a special interest program for funding and

acquisition. While this report was an intended response to the COWC, it also served as direct

communication to the entire DOD and each of its military services.

For the ICS environment the research has taken a different view. Instead of increasing

situational awareness for a specific commander, it concentrates on implementing enterprise wide

sourcing efforts and better buying procedures. The most comprehensive was Project Air Force

(PAF).

Under contract with the Air Force the RAND Corporation developed PAF to provide

independent analysis of its many policies and provide possible alternatives across four research

programs: Strategy and Doctrine; Manpower, Personnel, and Training; Resource Management;

and Force Modernization and Employment.[34] Specifically for the ICS environment, RAND

Report MG274, *An Assessment of Air Force Data on Contract Expenditure*, published in 2005

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34. RAND Corp, *About Project Air Force – Research Programs*.

and RAND Report MG572, *Developing Tailored Supply Strategies*, published in 2007, directly relate to strategic sourcing and requirements data analysis.

RAND Report MG274 details how the Air Force compiles and analyzes acquisition data to conduct its detailed spend analyses. The purpose was to determine the processes and systems the Air Force uses to buy goods and services as well as detailing the composition of its vendor and supply base. The report also researched how the Air Force gathers its acquisition data for analysis as well as its overall quality. It also provided insight on policy changes and training for acquisition personnel to improve its quality. This report was completed in collaboration with senior Air Force and MAJCOM level acquisition professionals which adds to its credibility.

RAND Report MG572 consolidates and analyzes business and professional literature on identifying, developing and implementing strategic sourcing programs. This report systematically analyses the many different aspects of new and emerging acquisition and supply chain management processes used by large corporations and presents them for use to the Air Force and DOD. Specifically, it shows the effectiveness and process to gather and analyze enterprise acquisition data, how to establish effective commodity or service groups, and the process to identify similar acquisition requirements and make effective aggregation decisions, through enhanced situational awareness.

The Air Force has only done research on the post award requirements capture which is heavily used during spend analysis and documented well in MG274. MG572 shows the origins of strategic sourcing and how they have evolved through commercial practices. While there is no specific research on requirements capture before award on an acquisition, MG572 does give good insight on its potential. The COWC and PAF, and the tenants they describe, have been the foundation for much of the acquisition transformation. They have led to numerous government

initiatives and policy implementations throughout the Department of Defense and the Air Force. In the OCS environment it specifically led to the development of programs for requirements capture and analysis. For the ICS environment it identified this capability gap and the need to consider cASM for its fulfillment.

SECTION 3

EVALUATION – RESEARCH FRAMEWORK

In order to determine if cASM can be the answer to capture requirements for the ICS environment, specifically before final award of an acquisition, two different aspects were evaluated. Does the ICS environment have similar characteristics to the OCS environment to support the cASM tool and does it have the correct capabilities. A comparative analysis was conducted to see if these two environments acquire similar commodities, use standardized business procedures and systems, and operate under a similar chain of command or contracting authority. With this analysis in mind, cASM was then evaluated to determine if it will provide the required capabilities. The evaluation criteria were developed using the deficiencies identified for the COWC and the primary tenants of strategic sourcing. The COWC identified that all requirements must be captured within an AOR to ensure the contracting environment maintains situational awareness and that each acquisition meets his overall goals and objectives. The primary tenants of strategic sourcing support this as they are to influence the development and approval on an individual contract acquisition strategy through effective pre-award collaboration. Based upon these areas in order to affect pre-award planning, a requirements system must be

able to accept any form of service or commodity, provide situational awareness and be able to aggregate like acquisitions. The evaluation criteria developed with this methodology and how they will be measured are:

1. Does cASM provide the flexibility to capture multiple categories of requirements? This criteria of flexibility will be measured in two ways. Firstly, it will be determined if there are any system restrictions or processes on any commodity or service that would prevent it from being input into this system. The architecture must open and not constrained. Secondly, the data must be captured in a way that can facilitate its use throughout the electronic contracting domain. In just one aspect of this domain, Contract Writing Systems, the DOD currently uses 17 different systems of which the Air Force uses three.[35] All data generated must be able to flow into any potential contracting system. Overall these packages cannot be static but dynamic, able to be updated and reused as needed.

2. Does cASM provide leadership the visibility of these requirements inputs across the entire enterprise? The main aspect of this criterion, to ensure visibility, is that cASM must be located within an electronic environment that is centrally accessible to the entire enterprise. Once requirement packages are input into the system it must also provide a tracking and reporting capability with the potential to export data to other analytic software.

3. To conduct analysis does cASM have the ability to manipulate, prioritize, and consolidate requirements prior to award? The average acquisitions spend for the ICS environment is approximately $8.6 billion dollars per year which represents a high volume of packages input into the system. cASM must provide a capability to effectively categorize requirements package so they can be easily identified and grouped with similar acquisitions.

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35. DOD, *Strategic Plan for Defense Wide Procurement Capabilities,* 6.

Once categorized, the system must then provide a capability to manipulate these packages for consolidation or prioritization.

The results of each evaluation criteria resulted in a meets or does not meet designation. Each does not meet designation prompted a brief explanation or impact statement. Any does not meet criteria also identifies a lack of specific capability needed for cASM to be the tool identified to meet the needs of the installation support environment. A fully successful cASM should provide senior leaders with the correct tools and information so they can make informed business decisions and enhance buying power.[36]

This research did not analyze all possible tools or systems that have the potential to provide this capability. Development of any new tool or system and the associated accreditation requirement in order to place these systems on government networks and consolidate sensitive information can be time consuming and expensive. To down select any potential tool for evaluation, it must be a current system in use or the final stages of development, must be fully accredited for sensitive government information and only require minimal or no additional investment. cASM was selected to be evaluated as it is the only comprehensive requirements gathering program available that is currently operational, fully accredited and hosted, supported by the Defense Logistics Agency (DLA), Joint Contingency and Expeditionary Services (JCXS) program and fully funded by the Office of the Secretary of Defense (OSD).[37] No other tool or system was identified that currently provides this or a similar capability.

SECTION 4

EVALUATION – COMPARATIVE ANALYSIS OF ENVIRONMENTS

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36. DOD, DOD-Wide Strategic Sourcing Program, *Concept of Operations*, 10
37. DLA, *cASM Capabilities Overview*.

The closer the characteristics of two environments the higher probability a tool developed

for one would be adaptable to the other. If the environments are fundamentally different then

there is a higher probability the tool would not be adaptable without some form of modification,

which could be time consuming and costly. A comparative analysis of these two environments

was conducted to determine how similar they are, as well as if the ICS environment could

facilitate the use of cASM.

The similarities starts with their basic mission. Both environments are tasked with

providing the process of planning for and obtaining supplies, services, and construction from

commercial vendors to support the needs of a designated commander. The requirements are

generated from the needs of a single using organization and are approved through the command

structure. This is different from other contracting environments, such as the acquisition of a

Major Weapon System, whose requirements are generated from the needs of the entire Air Force

or the Department of Defense. Instead of a single using organization, requirements are generated

from high level stake holders such as a Program Executive Officer (PEO) working for a specific

Service Secretary not a chain of command. Since OCS and the ICS share this same basic

mission, they were compared to see if they acquire similar commodities or services, use

standardized business processes and systems, and operate under a similar command structure or

contracting authority.

Commodities and services

Commodities and services bought in support of both the OCS and ICS environments are

varied by nature. They range from construction to office supplies. These are not the specific

commodities to support a weapon system or vehicle fleet, but the everyday needs to conduct

operations. Acquisitions that are conducted in support of the OCS environment are done under

regulations and authority specific to the joint mission and area of operations and cannot be used to support any other environment. However, ICS acquisition organizations can support both environments. Additionally, AFI 64-102, *Operational Contracting Program*, directs ICS to not only meet the needs of an installation commander but a deployed commander as well. By regulation, the commodities and services acquired within the OCS environment must be also be able to be acquired within the ICS environment. The similarities in the commodities and services become apparent when the expenditures by Product Service Code (PSC) for the OCS environment are compared side by side to the ICS environment. While the top twenty are not an exact duplication, the point is to show that the OCS PSCs are incorporated into the ICS PSCs. If the list was expanded out, most if not all of the PSCs acquired within the OCS environment would appear in the ICS environment. The top twenty OCS PSCs are shown in figure 1 below:

Figure 1: Top Twenty Contingency Acquisition Expenditures by PSC

FY 11 - FY15 USAF Contingency Vs Installation Support Acquistion Expenditures				
Product Service Code (PSC)	Rank	Contingency Operations Spend	Rank	Installation Support Spend
S216: HOUSEKEEPING- FACILITIES OPERATIONS SUPPORT	1	$338,063,328.00	5	$1,231,582,544.00
S216: FACILITIES OPERATIONS SUPPORT SVCS	2	$324,941,541.00	39	$322,896,964.00
9999: MISCELLANEOUS ITEMS	3	$86,080,409.00	350	$10,519,500.00
Z111: MAINT-REP-ALT/OFFICE BLDGS	4	$36,471,504.00	17	$551,147,279.00
D307: AUTOMATED INFORMATION SYSTEM SVCS	5	$17,381,886.00	352	$10,490,529.00
AZ12: R&D-OTHER R & D-A RES/EXPL DEV	6	$15,879,526.00	2	$1,906,853,007.00
W023: LEASE OR RENTAL OF EQUIPMENT- GROUND EFFECT	7	$9,994,781.00	185	$30,608,492.00
Z2JZ: REPAIR OR ALTERATION OF MISCELLANEOUS BUILDI	8	$8,815,181.00	10	$865,464,706.00
9390: MISC FABRICATED NONMETAL MATERIALS	9	$8,278,382.00	1299	$350,844.00
R408: SUPPORT- PROFESSIONAL: PROGRAM MANAGEMENT/SU	10	$7,439,256.00	6	$1,176,284,776.00
5825: RADIO NAVIGATION EQUIPMENT, EXCEPT AIRBORNE	11	$6,619,407.00	358	$10,198,060.00
S203: HOUSEKEEPING- FOOD	12	$5,779,834.00	22	$467,851,418.00
J099: MAINT/REPAIR/REBUILD OF EQUIPMENT- MISCELLAN	13	$5,250,992.00	124	$59,362,621.00
S201: HOUSEKEEPING- CUSTODIAL JANITORIAL	14	$4,893,854.00	19	$495,676,365.00
Z199: MAINT-REP-ALT/MISC BLDGS	15	$4,877,182.00	26	$430,443,821.00
R425: SUPPORT- PROFESSIONAL: ENGINEERING/TECHNICAL	16	$4,778,697.00	3	$1,696,479,835.00
6115: GENERATORS AND GENERATOR SETS, ELECTRICAL	17	$4,411,124.00	324	$11,698,026.00
Z1AA: MAINTENANCE OF OFFICE BUILDINGS	18	$3,947,208.00	35	$348,665,199.00
4330: CENTRIFUGALS SEPARATORS & FILTERS	19	$3,912,936.00	1859	$43,142.00
Y1PZ: CONSTRUCTION OF OTHER NON-BUILDING FACILITIE	20	$3,414,552.00	252	$18,142,632.00

Source: Federal Procurement Data System – USAF Expenditures FY11- FY15

Standardized Business procedures and systems.

In the OCS environment, business procedures and systems are governed under the DOD Contingency Business Environment (CBE) Board of Governors (BOG).[38] Policy and regulatory authority comes from the Federal Acquisition Regulation (FAR) and its associated DOD supplement (DFARS), with specific references to DFARS Parts 218, *Emergency Actions*, and 225, *Foreign Acquisition*. The BOG ensures that the Joint AOR has all the e-business tools, infrastructure, processes and policies in place for all OCS acquisitions and these tools ore housed within a Common Operating Environment (COE). The OCS environment changes rapidly, the BOG system keeps the same systems and processes in place to facilitate a quick and efficient establishment and continuity of operations. All personnel, regardless of branch of service, follow the same procedures and use the same business systems.

In the ICS environment, business procedures and systems are governed under AFICA and the AFICA Mandatory procedures (MP). Policy and regulatory authority comes from the FAR, DFARS, and the associated Air Force Supplement (AFFARS). AFICA and its Senior Contracting Official (SCO) ensure a COE is established across all of the installation support organizations with standard processes and business systems.[39] All installation acquisition personnel, regardless of the Air Forces' Major Commands (MAJCOM), follow the same procedures and use the same business systems.

Chain of Command and Contract Authority

With the implementation of the IAT improvements OCS and the ICS environments have similar Command and Contract Authority structures. Within the OCS environment Command Authority flows through the Combatant Commander down to JTF Commanders to an individual

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38. DOD, Contingency Business Environment (CBE) Guidebook, iv.
39. AFICA, MP 16-2, 1.

organization. Contract Authority flows through the supporting Service Secretary, Head of

Contracting Activity, Senior Contracting Official, down to the Contracting Officer. In the ICS

environment Command Authority flows through the MAJCOM Commander down to the

individual organization, which include installation contracting organizations. Contract Authority

flows through the Secretary of the Air Force to the Head of Contracting Activity, the Senior

Contracting Official at HQ AFICA, then the AFICA Contracting Officials at each MAJCOM,

down to each contracting organization and Contracting Officer. In both environments Contract

Authority comes through and is controlled through a single authority structure.

In the ICS environment, requirements are approved by the appropriate MAJCOM

command structure; the contract authority structure ensures those approved requirements are

executed properly in accordance with all laws and regulations. In the OCS environment an

additional structure was created to ensure effective integration of Contract Support. This

structure is a review board process within the contracting environment, which are Combatant

Commander Logistic Procurement Support Board (CLPSB), the Joint Requirements Review

Board (JRRB) and the Joint Contracting Support Board (JCSB).[40] The CLPSB determines

theater or AOR wide policies and procedures, the JRRB reviews, validates, prioritizes and

approves contract support requirements, and the JCSB coordinates and de-conflicts common

contracting actions amongst all the theater internal and external contracting organizations.

Overall the OCS and ICS environments acquire similar and supportive commodities and

services, use governing bodies to ensure standardized business processes and systems, and have

Command and Contract Authorities that follow the same regulatory flows. The main difference

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40. JP 4-10, *Operational Contract Support*, F-1.

is the additional review board structure present in the OCS environment that is not present in the installation support environment.

SECTION 5

EVALUATION – CONTINGENCY ACQUISTION SUPPORT MODEL (cASM)

The evaluation criteria presented here focuses on assessing if cASM has the capability to deliver a pre-award requirements capture function to the ICS environment which could improve contracting organizations situational awareness and enhance Strategic Sourcing efforts. Effectiveness is not just determined by providing an overall capability but how that capability is achieved. Capturing acquisition requirements ultimately breaks down into how this system captures data. The contracting environment is comprised of multiple electronic systems that facilitate contract generation, contract administration, acquisition history and acquisition spend analysis. Data must be able to flow easily through each of these systems. The overall results of the evaluation against the criteria are shown below in figure 2.

Figure 2: Evaluation of cASM

Criteria Number	Evaluation Criteria	Meets or Does not Meet
	Evaluation of cASM	
1	Does cASM provide flexibility to capture multiple categories of requirements?	Meets
2	Does it provide leadership the visibility of these requirements inputs across the entire enterprise?	Meets
3	To conduct analysis does it have the ability to manipulate, prioritize, and consolidate requirements prior to award?	Meets

Source: Authors evaluation

Criteria One – Multiple Category Capture

cASM was found to provide the flexibility to capture multiple categories of requirements. The cASM architecture was not designed around a specific commodity or service but around the need for the acquisition community to receive clearly written and complete requirements documents with an appropriate amount of detail to ensure the correct commodities and services

21

are obtained.[41] Requirements packages are normally complex groups of documents and forms

describing technical needs and providing background data such as requesting organization,

financial information and expected delivery times and locations. Without systems like cASM,

these packages are completed outside of the contracting environment in standalone word

processing documents or portable document images, which by their nature are static and not

easily updated once complete. Once approved these documents then have to be manually

transferred into electronic contracting systems by acquisition professionals. cASM is a system

that captures the data of requirements and builds documents or forms as outputs. Once the

documents are generated the data retains its identity and does not become fixed within the

documents. Changes can then be incorporated into the data and the output documents

regenerated as needed, thus ensuring flexibility. Additionally, cASM provides the user a direct

portal into the contracting environment as it captures the entire requirements package in the

Purchase Request Data Standard (PRDS) format.[42] PRDS is a standardized data structure that

facilitates the requirements ability to be used throughout the electronic contracting domain.

The PRDS structure is required by the FAR and DFARS for all Contract Writing Systems

within the federal and DOD acquisition networks and flows to the Procurement Data Structure

(PDS) which is the DOD wide standard for all procurement actions.[43] The PRDS and PDS

structure is a data schema that standardizes data elements for consistency, breaks data into the

lowest possible elements, and eliminates as much as possible the input of free form text.[44] By

being PRDS compliant, cASM is not limited on the categories of requirements it can capture, it

is focused on the effective package in the correct data format. Any requirements package

41. DOD, Contingency Business Environment (CBE) Guidebook, 16.
42. DLA, *cASM Capabilities Overview*.
43. DOD, Procurement Data Standard, *Concept of Operations*, 2.
44. Ibid., 8.

submitted are immediately available not as standalone documents but flexible data that is easily

updated and reusable in future acquisitions or additional analysis.

The benefits of cASM start by having the requirements owner inputting data that can go

directly to the contracting environment. There is no secondary effort within the contracting

organization to transfer these documents into the electronic contracting environment. cASM is

therefore a contracting program that is dependent on non-contracting personnel to populate it

with data. This may also prove to be a disadvantage as the requirements owner is normally not

an acquisition professional and may not have an in-depth knowledge of acquisition rules,

requirements, or processes.   The user interface is very intuitive but it is still orientated towards

someone who has some knowledge of the acquisition process. Training and user manuals are

available and recommended but not mandatory. Any user tasked to input a requirements

package must have in-depth knowledge of the requirements needs and technical specifications.

An unprepared user may quickly become overwhelmed, waste time providing unnecessary

information, or not provide the minimum required information. The end result would be a

requirements package that would not be actionable by contracting personnel and comprised of

meaningless or irrelevant data.

Criteria Two – Leadership Visibility

cASM was found to provide leadership the visibility of these requirements inputs across

the entire enterprise. cASM is globally and centrally hosted on the Global Information Grid

(GIG) by the Defense Information Systems Agency (DISA) supported by the DLA JCXS

program.[45] As cASM does not reside within a single military service or associated with a

specific geographic location, it is accessible around the world at any time. Centralized hosting

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45. DLA, *cASM Capabilities Overview*.

does expose cASM to the disadvantages of being accessible through the internet. Access is dependent upon network connectivity, network speed, and subject to the vulnerability of cyber-attack.   While there are very robust safeguards in place, maintained by DISA to prevent loss of information, a network outage would prevent any access or use of the system. Slow network speeds may decrease productivity and increase user frustration.

Once a requirements package is input into the system it is visible by its entire approval authority and leadership with its current status of completion or approval. Requirements packages are managed within directed contracting organizations using workflows and filters. Additionally, the reporting module provides a mature capability for leadership to view current and historic trends, package tracking, and as each part of the approval process is digitally signed, accountability can be assessed throughout the generation process.[46] As the data within cASM is PDRS compliant it can also be exported into other programs and systems for visibility and analysis easily. One of the tools authorized by the FAR, for visibility to the Chain of Command and the commercial vendor base, is the Long Range Acquisition Forecast (LRAF).

Authorized for release to the public under FAR 5.404 the LRAF is a forecast of acquisitions for each agency in conjunction with the Office of Small Business to assist industry in the planning for and meeting acquisition requirements of the federal government.[47] The last LRAF published by the USAF was a labor intense manual process. The end product consisted of thirty-nine data fields which included a variety of elements such as the procurement owner, the anticipated type of acquisition, quantity and value. The use of cASM could have potentially electronically populated eleven of the identified thirty-nine fields. Not only would this provide

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46. DOD, Contingency Business Environment (CBE) Guidebook, 16.
47. FAR, 5.404 - 5.404-2.

the efficiency of automation, it would lend insight into actual upcoming acquisitions in near real time.

Criteria Three – Conduct Analysis

In order to conduct analysis, cASM was found to have the ability to manipulate, prioritize and consolidate requirements prior to award. These abilities start with requirements package standardization. The intuitive interface of cASM guides the user, using a series of questions to identify the type of acquisition and using its FAR or DFARs regulatory guidance, to determine the needed documents or forms for the requirements package.[48] These questions use a series of drop down boxes to determine standardized categories and product codes and virtually eliminate free form text input. This process dials the user down to ensure an acquisition is properly categorized during its initial input. Most Contract Writing Programs rely only on the acquisition personnel's knowledge of these categories to make this determination and have no automated validation. The most common element is the Product and Service Code (PSC), which categorizes all products or services as the "What" that was actually purchased and is reported throughout all of the contracting systems.[49] There are currently over 2500 different codes available and relying on them to be determined manually incorporates a high risk of miss-categorization, having them determined by the system starts the data validation with the initial entry of the requirement and increases its accuracy.

This standardization of the requirements package that is created by cASM allows the salient characteristics of the acquisition to be determined quickly and accurately. As the data is already in uniformed standards like requirements are easily identified to be designated for consolidation or higher priority. Also since each requirement package is built within the cASM

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48. Total Quality Systems, Inc., *Contingency Acquisition Support Model (cASM).*
49. GSA, *Product and Service Codes Manual*, 6.

application and PRDS compliant, not stand alone documents, the information is able to be manipulated or updated by the user or higher members of its approval chain. This manipulation can be accomplished within the planning module or requirements generation module as needed and ensures the requirements package retains its data flexibility.

Even though cASM provides the capability to identify like requirements easily, the sheer volume of actions produced by the approximate $8.6 billion dollar a year spend could prove to be an additional disadvantage. The time required to conduct any form of analysis may be inefficient and cumbersome, as the structure that would conduct this analysis within the ICS has not been determined, there is no benchmark to measure what this time requirement may be. Also, since the use of cASM is currently not mandatory but at the discretion of the JFC, it has not has not been used to this scale or experienced such a high volume of transactions.

SECTION 6
ANALYSIS OF RESEARCH

The transformation of the acquisition community initiated by the IAT and COWC has independently created two similar contracting domains in the Installation Contracting Support (ICS) and Operational Contract Support (OCS) environments. Both contain a single contract authority that supports a Chain of Command, uses standardized business processes and systems, and is directly responsible to provide the planning and execution of acquisitions to support the daily needs of operational organizations in completing their mission. In the OCS environment, to ensure the requirements of these organizations were captured, and efficiently acquired within the intent of the GCC or JTF, cASM was developed and implemented. In the ICS environment, Strategic Souring takes the place of a single Commander to ensure efficient acquisitions, yet has no mechanism to effectively capture requirements.

Since cASM is PRDS compliant it provides a capability to capture requirements in a standardized manner with flexible data that is consistent and reusable. This data is then easily transferrable further into the contracting electronic environment with little or no modifications. One of the most difficult and time consuming processes of strategic souring is the identification of like or supporting acquisitions for potential aggregation. This capability encompasses all different forms and categories of acquisitions and also serves as an initial validation to the standardization of the requirements package which enhances analysis later in the acquisition process to identify strategic sourcing opportunities. This standardization also enhances efficiency and reduces errors of the contracting organizations as requirements packages will not have to be translated or transcribed from standalone documents into electronic contracting applications. As the contracting environments of ICS and OCS are similar, cASM could easily be transferred from one to the other and provide the same or similar capability.

An exact replication of the capability available within the OCS environment may not be immediately possible within the ICS environment. cASM provides the data to be able to conduct an analysis but it does not conduct the actual analysis, this has to be done outside the system by some form of governing body. In the OCS environment this analysis is provided by the unique structure of the review board process that is present within the contracting organizations. These are the CLPSB, JRRB and JCSB. The ICS environment does not have a structure present and would have to develop a similar structure within its contracting organizations to complete this task. Additionally the high volume of transactions put into the system as it supports the entire ICS environment has not been benchmarked and could prove to be inefficient.

A further element that will make the transfer of cASM from the OCS to the ICS environment more complex will be the using organizations Chain of Command. In the OCS

environment the Chain of Command is unified under the GCC or JTF Commander with a directed mission. In the ICS environment using organizations may belong to any MAJCOM within the Air Force, each with its own different directed mission. Complexity will arise if different MAJCOM mission requirements come in conflict with priorities or strategies developed by the acquisition community in support of strategic sourcing or the consolidation of like acquisition requirements.

The highest risk disadvantage to the implementation of cASM is that it is an acquisition program that will be used and populated by non-acquisition personnel. cASM is designed for requirements owners to input these packages not acquisition personnel or organizations. The more personnel are required to input information into this system without the proper training and knowledge increases the risk of unusable data or limited use of the system. The benefits of cASM is through all requirements being captured so that contracting organizations have the visibility of emerging needs before they are fulfilled. If limited use occurs due to frustration of the system the full benefits of Strategic Sourcing will not be realized. Contracting organizations must partner with users to provide training and business advisor support to ensure cASM does not become viewed as an additional bureaucratic process into the acquisition process with no value added.

Overall the similarities of the two environments and the results of the evaluation criteria represent that cASM does provide the capability for the ICS environment to capture acquisition requirements prior to award. While there are some factors that have disadvantages and may increase the complexity of cASMs use, they do not represent insurmountable barriers.

SECTION 7

RECOMMENDATION AND CONCLUSION

Recommendation

cASM has the capabilities needed for the ICS environment to capture and analyze acquisition requirements prior to award. cASM should be implemented to support installation and strategic sourcing needs. It is also recommended that further research be conducted to determine a potential structure that would be able to assume the tasks similar to those conducted in the OCS environment by the CLPSB, JRRB and JCSB.

The plan recommended for implementation would use a multi-phased process. The initial phase would be organizational fielding and utilization of cASM as the standardized point of entry into the electronic contracting environment. The follow on phase would be the integration of cASM throughout the leadership structure to facilitate acquisition requirements analysis and strategic sourcing efforts.

The initial phase, Organizational fielding, would precede one MAJCOM at a time, with the first being considered a Pilot Program. The Pilot Program would be used to vet and capture any specific process or work flow developments to facilitate its use. Once the Pilot Program has reached a state where routine actions move through the system in a timely, efficient manner, the process would be replicated for each remaining MAJCOM successively. The main intent for this phase is familiarization with the tool, for the supported organizations and the acquisition force, establishing a standard business process for the submission of requirements packages and ensure the volume of transactions do not overwhelm the system. During this phase is also the recommended time frame to conduct further research on a potential review structure that would support the analysis and review function.

The second phase would be the integration of the contracting leadership with the review and analysis function to fully utilize the capability of cASMs requirements capture. In a similar

29

fashion as with the initial phase, implementation would proceed one MAJCOM at a time, with the first also being considered a Pilot Program. As the review and analysis structure could potentially be completely new it should be tested and modified as indicated before being implemented across the force. Once routine actions are analyzed and approved for sourcing as directed through the review process in a timely, efficient manner, the process would then be replicated for the remaining MAJCOMs. If this second phase proves to be too complex or inefficient to be replicated across the force, it would be the alternative recommendation to leave cASM in place as fielded in the initial phase and continue to be used as the standardized point of entry for all requirements packages into the electronic contracting environment. In this alternative recommendation the acquisition community would still receive the benefits of standardization and the data flexibility, adaptability and reusability of requirements packages being submitted in the PRDS format along with the accuracy inherent through the use of cASMs requirements generation interface.

Conclusion

The last few years of acquisition transformation within the Department of Defense and the Air Force has created the correct conditions for full implementation of Strategic Sourcing and greater efficiencies than ever before. The establishment of AFICA as the senior headquarters responsible all installation related contracting as well as the flow of Contracting Authority versus each MAJCOM Commander being responsible for their own support, has streamlined the process and encourages cross organization, installation and MAJCOM collaboration. The implementation of cASM and effective requirements capture will increase pre-award collaboration by allowing contracting personnel a better situational awareness of the emerging needs of their supported organizations.   This will in turn create better business arrangements to

balance schedule, vender performance, and total cost.[50] When completing his remarks to

Commission on Wartime Contracting, Mr. Shay Assad, Director of DPAP, stated, which seems

just as poignant now as it did in April 2010:

> Equally important, the requirements community on the front end of the acquisition process needs a joint solution: they need an efficient way to get complete and accurate acquisition packages to contracting. Our joint solution, which is still under development, is the Contingency Acquisition Support Model, or cASM, which will be an easy-to-use tool that helps users get their requirements on contract more quickly. [51]

cASM is the answer to capture requirements for the installation contracting support

community and implementation will lead to savings and process efficiencies. The more accurate

and effective acquisition requirements are input into the beginning of the acquisition process

ensures faster throughput and a higher guarantee to get the right requirement to the right user at

the right time and at the best possible cost. Delivering requirements at the best cost equals more

buying capability to meet the demands and missions of Installation Commanders across the Air

Force.

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50. DOD, *Implementation of Strategic Sourcing Initiatives, FY07 update,* 3.
51. COWC, *Hearings before the Commission on Wartime Contracting,*19-20.

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